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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,582

09/12/2003

Yasuji Seko

117159

5272

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04/21/2005

OLIFF & BERRIDGE, PLC.

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ALEXANDRIA, VA 22320

EXAMINER

CHISDES, SARAH J

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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*** SUPPLEMENTAL ***
Office Action Summary

Application No.

10/660,582

Applicant(s)

SEKO ET AL.

Examiner

Sarah J. Chisdes

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 11-13 is/are allowed.
 6) ☒ Claim(s) 1, 18 and 20 is/are rejected.
 7) ☒ Claim(s) 2-10, 14-17 and 19 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

SUPPLEMENTAL DETAILED ACTION

This action is supplemental to the action dated March 23, 2005. Upon examination of a related case, patentability issues not mentioned in the previous office action arose in regard to this case, and are detailed in this communication.

Information Disclosure Statement

The Information Disclosure Statement filed December 1, 2003 has been entered and the reference considered by the examiner.

Drawings

The drawings were received on December 1, 2003. These drawings are approved.

Specification

The disclosure is objected to because of the following informality: in the first line of the first paragraph in the Description of the Related Art, the term "tree"-dimensional is used. It was understood as "three"-dimensional. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(f) he did not himself invent the subject matter sought to be patented.

(g)(1) during the course of an interference conducted under section 135 or section 291, another inventor involved therein establishes, to the extent permitted in section 104, that before such person's invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or (2) before such person's invention thereof, the invention was made in this country by another inventor who had not abandoned,

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suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Claim 1 is directed to the same invention as that of claim 5 of commonly assigned Application No. 10/426,632. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by **Ogawa (5,640,241)**. The "light source for emitting light" corresponds to the "light spot"(4) in Ogawa, the "detector" corresponds to the "image sensor" (2) in Ogawa, and the "calculator" corresponds to Ogawa's "image processing unit" (3), all in Figure 1. The "optical system having a spherical aberration for forming a concentrated area of the light" corresponds to the "cylindrical lens" (1) in the same figure. The phrase "having a spherical aberration" is understood to describe the optical system, and the optical system is understood to be that which forms the concentrated area of light. The lens in Ogawa can be construed as an "optical system". All lenses have some inherent aberrations (no real lens is perfect), so the cylindrical lens can be seen as an "optical system

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having a spherical aberration." Moreover, Ogawa uses the spherical lens as an optical converter to convert the light spot unto a "linear image" (column 2, lines 25-26, and elsewhere), which is a concentrated area of light. Hence the cylindrical lens of Ogawa is an "optical system having a spherical aberration for forming a concentrated area of light".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa. Ogawa describes a system according to claim 18, but does not explicitly show a moveable element wherein the light source is mounted on the moveable element. However, in column 5, lines 4-5 and elsewhere, Ogawa describes the light source as being displaceable. The examiner takes Official Notice of the fact that the provision of a movable mount for the light source such as a optical pen used in the graphic design industry would have been known to those of ordinary skill in the art. It would be obvious to one of ordinary skill in the art to provide a light source which is being positionally tracked with a movable mount so that it may be moved by a user in a secured (i.e. non damaging) and optically unobtrusive manner.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

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harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 5 of copending Application No. 10/426,632. Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach the use of an interference pattern created by a spherical aberration in a lens to measure the position of an object. Claim 5 of Application 10/426,632 is dependent on claim 1. Application 10/426,632 claims a "light source radiating laser beam", whereas the present application claims a "light source". A "light source radiating laser beam" is a specific type of light source, and hence meets the condition of a "light source." Application 10/426,632 claims "an optical lens system generating an interference pattern" (claim 1) "wherein the interference pattern is obtained by use of a spherical aberration of a lens" (claim 5) which meets the limitation of the "optical lens system which . . . forms an area of light concentration due to its spherical aberration" in the present application, because an interference pattern is an area of light concentration. Application 10/426,632 claims a "detector of the interference pattern" which is the same as the "light receiving device which detects the area of light concentration" in the present invention. Application 10/426,632 claims "an arithmetic unit for calculating the position of an object", and further specifies in claim 2 that the object could be the light source. Said

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"arithmetic unit" is the same as the "calculator which measures a position of the light source" in the present invention. Therefore claim 1 of the present application is not patently distinct from claim 5 of Application 10/426,632.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting, but would be allowable if the double patenting and 35 U.S.C. 102 issues were overcome.

Claims 2-10, and 14-17 are objected to as being dependent upon a provisionally rejected base claim, but would be allowable if the provisional rejection of the base claim is overcome.

Claims 11-13 are allowed.

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, taken alone or in combination fails to disclose or render obvious an optical system wherein a spherical aberration is used explicitly to produce an area of light concentration (e.g., interference pattern) and the area of light concentration produced by the spherical aberration is used to monitor the position of a light source as claimed in claim 11; and a diffusion member placed between a optical system and a detector as claimed in claim 19.

Regarding **claim 18**, if the claim were to be amended to read an "optical system having a spherical aberration, wherein the spherical aberration forms a concentrated area of light", it may be allowable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Falk et al. (4,627,722) discloses a similar method of monitoring the three-dimensional position of a light source, but uses a different means (i.e., interferometer) to produce the area of light concentration

Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well-known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well-known statement in the next reply after the Office action in which the well-known statement was made.

Telephone/Fax Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah J. Chisdes whose telephone number is 571-272-8450. The examiner can normally be reached on 9am-6:30pm Monday through Thursday, 9am-5:30pm on Friday, with alternate Fridays off.

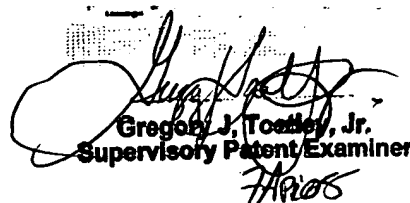
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sarah J. Chisdes, Ph.D.
Examiner
Art Unit 2877



April 7, 2005



Gregory J. Toatley, Jr.
Supervisory Patent Examiner
7/10/05